STATE OF CALIFORNIA | DEBT AFFORDABILITY REPORT | OCTOBER 2023

FIONA MA, CPA | CALIFORNIA STATE TREASURER

Fiona Ma, CPA
Treasurer
State of California

October 1, 2023

Dear friends,

The market for the state's bonds continues to be strong. Our bond offerings receive strong participation from investors, including individuals, asset managers, and mutual funds. The strong market demand for the state's bonds translates to lower debt service costs.

Yields across the bond markets have continued their upward trajectory since the release of our 2022 Debt Affordability Report as investors focused on the Federal Reserve's tight monetary policy, inflationary pressures, and the economy. For instance, during the fiscal year ended on June 30, 2023, the yield on the 2- and 10-year U.S. treasury bonds increased 2.03% and 0.93%, respectively. On September 26, 2023, the yield on the 10-year treasury closed at 4.56%, a level not seen since 2007. While technical factors, like supply and demand, can cause tax-exempt interest rates to behave differently from the larger bond market, tax-exempt municipal bond yields generally followed the upward trend of the overall fixed income market during the fiscal year.

Against this backdrop, my office sold $9.1 billion in general obligation and lease revenue bonds payable primarily from the General Fund during fiscal year 2022-23. $5.2 billion were sold to fund new projects and $3.9 billion to refund or refinance outstanding bonds. The present value savings of the refunding bonds sold for interest rate savings totaled $437 million.

During the legislative session that just ended, members introduced bills for new general obligation bonds totaling more than $114 billion. The proposed new borrowing called for a wide range of investments, such as affordable housing, schools, wildfire and drought prevention, behavioral health infrastructure, and sustainable food access and farmworker protection. At the end of the legislative session, only one general obligation bond bill, AB 531, passed and awaits the Governor's signature as this report is being published. AB 531 would enact the Behavioral Health Infrastructure Bond Act of 2024 which, if approved by the voters, would authorize the issuance of bonds in the amount of $6.38 billion.

For as long as this higher interest rate environment lasts, future borrowing will cost relatively more. This potential for higher debt service costs should be considered when policymakers and voters are considering approving new bonds.

Debt service on bonds must be paid; it is an inflexible commitment and carries a payment priority second only to the state's support for schools. When the state pays more in debt service on its bonds less money is available for other priorities. This impact is amplified during times of declining revenues, as projected by the Governor in his multi-year forecast.

We hope this and future editions of the Debt Affordability Report continue to provide policymakers and the public with information on California's debt profile and the market for the state's bonds to better assist with decisions about incurring debt.

In Peace and Friendship,

FIONA MA, CPA
California State Treasurer

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PREFACE

California Government Code Section 12330 requires the State Treasurer to submit an annual Debt Affordability Report (DAR) to the Governor and Legislature. The report must provide the following information:

- A listing of authorized but unissued debt the Treasurer intends to sell during the current year (2023-24) and the following year (2024-25), and the projected increase in debt service as a result of those sales.
- A description of the market for state bonds.
- An analysis of state bonds' credit ratings.
- A listing of outstanding debt supported by the General Fund and a schedule of debt service requirements for the debt.
- A listing of authorized but unissued debt that would be supported by the General Fund.
- Identification of pertinent debt ratios, such as debt service to General Fund revenues, debt to personal income, debt to estimated full value of property and debt per capita.
- A comparison of the pertinent debt ratios for the state with those of the 10 most populous states.
- The percentage of the state's outstanding general obligation (GO) bonds comprised of fixed rate bonds, variable rate bonds, bonds that have an effective fixed interest rate through a hedging contract and bonds that have an effective variable interest rate through a hedging contract.
- A description of any hedging contract, the outstanding face value, the effective date, the expiration date, the name and ratings of the counterparty, the rate or floating index paid by the state and the counterparty, and an assessment of how the contract met its objectives.

NOTES ON TERMINOLOGY

- This report frequently uses the words "bonds" and "debt" interchangeably, even when the underlying obligation securing the bonds does not constitute debt subject to limitation under California's constitution. This conforms to the municipal market convention that applies the terms "debt" and "debt service" to a wide variety of instruments, regardless of their precise legal status.
- The report references fiscal years without using the term "fiscal year" or "fiscal." For example, 2023-24 means the 2023-24 fiscal year ending June 30, 2024.

SECTION 1 | MARKET FOR STATE BONDS

California is one of the largest issuers in the $4 trillion U.S. municipal bond market. Over the last five fiscal years, the state has annually issued an average of $7.3 billion of General Obligation (GO) bonds. In 2022-23, the state issued $8.6 billion of GO bonds. Of that total, $3.3 billion was sold to refinance outstanding fixed rate GO bonds to produce debt service savings. Additionally, $189 million was sold to convert outstanding variable rate GO bonds into fixed rate GO bonds.

The market and price for the state's bonds are influenced by factors specific to the state as well as overall conditions in the financial markets. These factors include the economy, significant global events, general market interest rates, national and state personal income tax rates, the supply of and demand for municipal bonds, and investor perception of the state's credit.

Since the last DAR was published in October 2022, the municipal bond market has been influenced, by among other things, inflation, Federal Reserve rate hikes, a slowing economy, the collapse of several large regional banks, and important geopolitical events. These influences on the market have resulted in a volatile interest rate environment. Short-term interest rates have consistently risen, while long-term interest rates have fluctuated throughout the year. At the end of 2022-23, the yield curve was inverted—meaning many short-term interest rates were higher than their long-term counterparts. This type of inversion has traditionally been an indicator of a recession.

STATE-SPECIFIC FACTORS

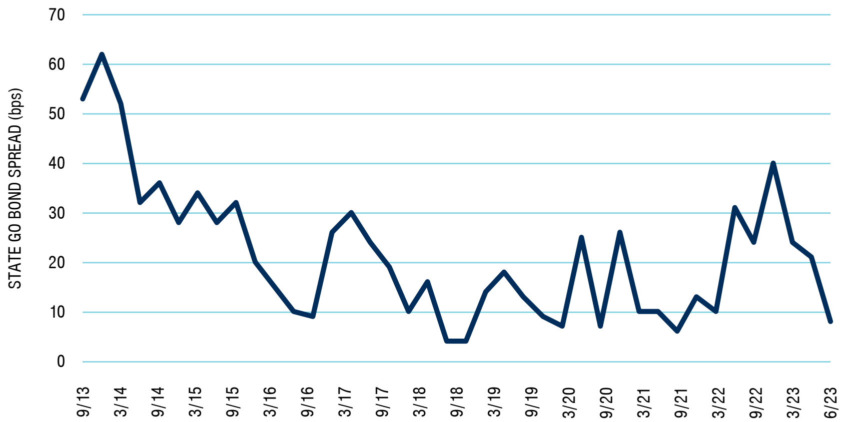
The state continues to prudently address market challenges while effectively managing its debt programs to minimize borrowing costs. After periods of strong revenue growth, the state now projects a decline in revenues. Fortunately, California has been building significant reserves and instituted reforms to improve its fiscal position and governance. The state ended 2022-23 with significant budgetary reserves and projects steady reserve balances in future fiscal years. The availability of these accumulated reserves has enabled the state to preserve key investments in education, healthcare, climate crisis mitigation, housing, and infrastructure in the 2023-24 budget.

Reflecting the prudent management of California's finances, the ratings on the state's GO bonds have remained steady at "AA" by Fitch Ratings (Fitch), "Aa2" by Moody's Investors Service (Moody's) and "AA-" by S&P Global Ratings (S&P). However, citing a weakened and uncertain revenue environment, Moody's assigned a negative outlook to the state's credit rating in May 2023. Fitch has maintained a stable outlook throughout the fiscal year while S&P has maintained a positive outlook since September 2021. The outlook applied to a credit rating generally reflects the rating agency's view that some trends are taking place in the state that could lead to a rating change.

While there has been some volatility in the state's credit spreads, they have generally traded in a relatively narrow range

FIGURE 1

30-YEAR CALIFORNIA MMD CREDIT SPREADS TO "AAA" MMD



Source: Refinitiv/Thomson Municipal Market Monitor (TM3)

over the past decade. Credit spreads represent the difference in yield between two bonds of similar maturity but different credit quality. Figure 1 depicts the state's credit spreads, as measured by the difference between the California GO Municipal Market Data (MMD) benchmark to the AAA MMD benchmark.[1] The state's credit spread on its 30-year bonds to the MMD benchmark has tightened from a high of 62 basis points at the end of 2013 to a low of four basis points in September 2018 and was eight basis points as of June 2023.

While the fiscal position of the state's General Fund is stable, the state faces numerous risks with potentially significant General Fund impacts. These risks include, among other things, volatility in the state's revenues, elevated inflation, the threat of a recession, changes to global relations or federal policies on trade, health care costs, housing constraints, the cost of public employee retirement benefits, impacts of climate change, energy risks caused by extreme events, cybersecurity risks, and a potential new or resurgent pandemic, similar to the impacts experienced from COVID-19.

OVERALL BOND MARKET CONDITIONS

The discussion below begins with a review of the factors that impacted the larger U.S. bond market that also affected the market for the state's bonds. Since the DAR was last published in October 2022, the Federal Reserve increased the target range for the federal funds rate a total of six times increasing it by 225 basis points in an effort to reduce inflation.[2] Meanwhile, other economic data suggested that the economy was slowing and could go into a recession. This prompted market participants to try to anticipate when the rate hikes would slow and eventually end. Different pieces of economic data often supported different outlooks. When the narrative reflected higher inflation, long-term interest rates rose. When it suggested a slowing economy, long-term interest rates fell. This occurred continuously throughout the year, creating a volatile interest rate environment in 2022-23. In addition, other important events such as the collapse of several large regional banks in March, the war in Ukraine, tensions over the Taiwan Strait, and uncertainty in European political leadership generated large interest rate movements as well, adding to the volatility.

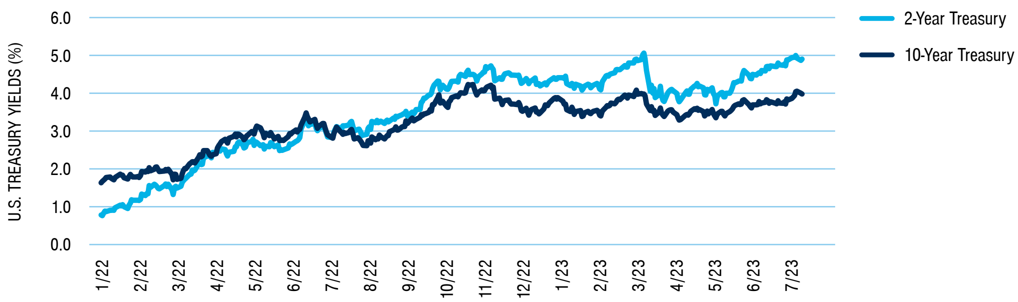
Figure 2 depicts the yields of 2-year and 10-year U.S. Treasuries to illustrate the trend of U.S. bond market interest rates since January 2022. Rates rose consistently since January 2022, and by the end of July 2022, the yield curve had become inverted with the 2-year Treasury yielding higher than the 10-year Treasury. As rates continued to further rise, the inversion persisted between these two key interest rate indices.

1 The California GO MMD benchmark is compiled each day using yields of the recent secondary market trades of state GO Bonds. Due to the much larger amounts of GO Bonds sold in its primary market issuances, the actual borrowing cost achieved by the state generally differs from the levels indicated by the California GO MMD benchmark. Nevertheless, the California GO MMD benchmark is a helpful proxy for tracking trends of the state's GO Bond program's borrowing cost. The AAA GO MMD benchmark is compiled each day in a similar manner using the GO Bonds of AAA-rated states. The AAA GO MMD benchmark, in particular, is considered the municipal industry's benchmark, against which the prices of most new issuances of municipal bonds are compared.

2 The federal funds rate is the interest rate associated with overnight borrowing among banks.

FIGURE 2

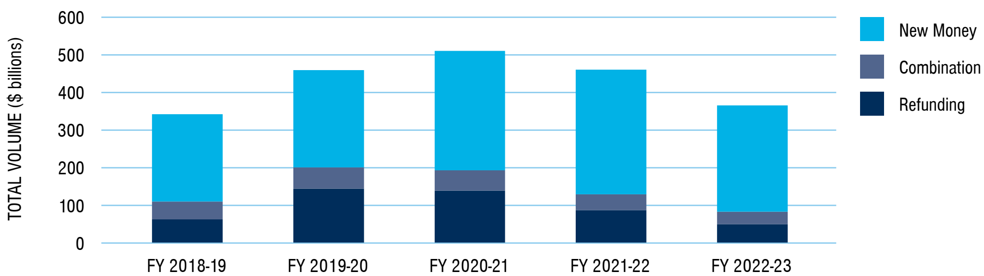
TRENDS OF 2- AND 10-YEAR TREASURY YIELDS



Source: Refinitiv/Thomson Municipal Market Monitor (TM3)

FIGURE 3

U.S. MUNICIPAL BOND ISSUANCE VOLUME BY PURPOSE



Source: The Bond Buyer

SUPPLY AND DEMAND

While tax-exempt interest rates generally follow trends set by the overall fixed income market, specific technical and fundamental factors can cause tax-exempt interest rates to behave differently from the trends of the larger market. The major factor is the supply and demand for tax-exempt bonds, which materially affected the pricing of municipal bonds in 2022-23.

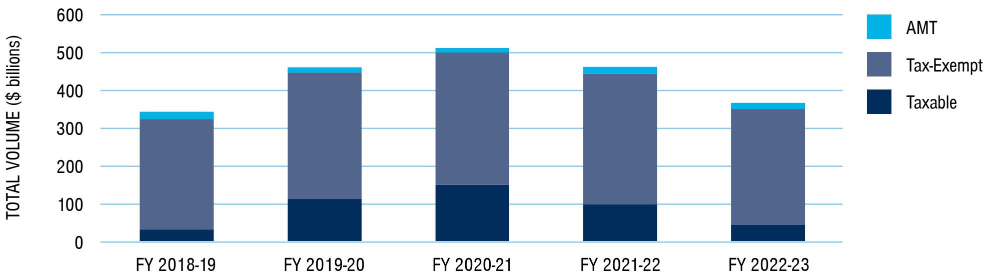
SUPPLY. Total municipal bond issuance volume for 2022-23 was 20.6% lower than in 2021-22, falling to approximately $364 billion. The reduction in supply was in large part attributable to the rise in interest rates, which hurt the economics of refundings and made borrowing for new capital projects more expensive. Figure 3 shows the U.S. municipal bond issuance volume for each of the past five years from July to June.

However, the decreased volume's effect on tax-exempt interest rates was less impactful because a large portion of the lower volume was attributable to the reduction in taxable municipal bond issuance volume. Taxable bond issuance had become more prominent following the elimination of tax-exempt advance refundings in the Tax Cuts and Jobs Act of 2017, but as interest rates increased, those refundings became unfavorable to pursue. Figure 4 shows the total U.S. municipal bond issuance volume by tax status. Overall, total tax-exempt issuance volume for 2022-23 was 11.2% lower, whereas taxable issuance volume decreased 56.1%.

DEMAND. Because of their tax advantage, tax-exempt bonds have a more limited universe of investors than taxable bonds. As a result, investor behavior can have an impact on the demand for tax-exempt bonds. Municipal bond mutual funds have been and continue to be a significant segment of the investor base for tax-exempt bonds, however, in recent years other investor segments have increased their participation in the municipal bond market. Retail investors using separately managed accounts ("SMAs") have grown their share of municipal bond holdings as municipal bond mutual funds' holdings have declined. These types of accounts have increased their holdings by 2.5% from the first quarter

FIGURE 4

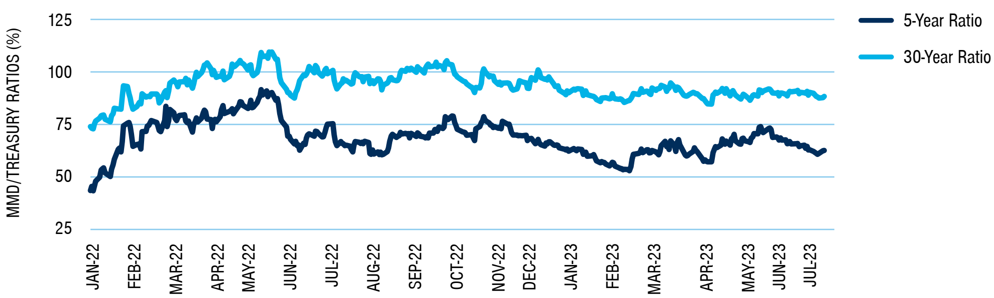
U.S. MUNICIPAL BOND ISSUANCE VOLUME BY TAX STATUS



Source: The Bond Buyer

FIGURE 5

5- AND 30-YEAR AAA GO MMD/TREASURY YIELD RATIOS



Source: Refinitiv/Thomson Municipal Market Monitor (TM3)

of 2022 to the first quarter of 2023, whereas holdings by municipal bond mutual funds declined 2.5% during the same period. A 1% percent change is equal to roughly $40 billion, making these changes over a one-year period quite significant. This shift in investor group participation explains why outflows in municipal bond mutual funds have not led to a weakening of overall demand for municipal bonds during the past year. Overall demand for municipal bonds is healthy, especially within 15 years where participation by SMAs has been the strongest.

Comparing the ratios of tax-exempt municipal bonds to U.S. Treasury yields is a common metric that investors use to determine relative value. Lower ratios indicate municipal bond outperformance. Figure 5 shows the ratios of AAA GO MMD to U.S. Treasury yields. The sustained rise in interest rates through May 2022 increased these ratios as well, as credit and other spreads all rose. As the pace of interest rate increases slowed, the ratios declined and have fluctuated over changing investor sentiments about the direction of future interest rates. Whenever investors expected interest rates to rise, the ratios rose quickly, but the ratios gradually declined as such concerns faded.

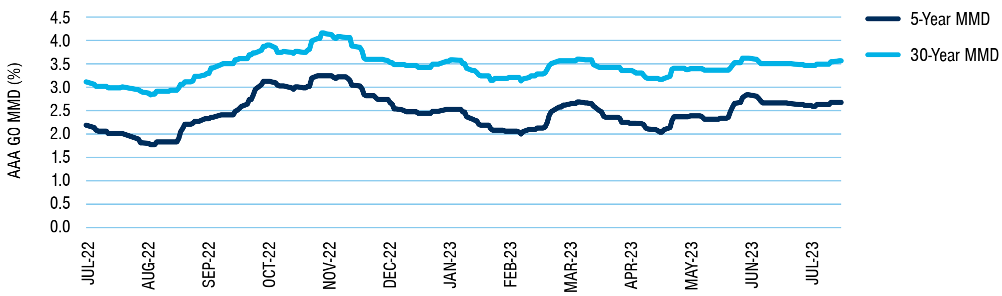
TAX-EXEMPT INTEREST RATE TRENDS

Tax-exempt interest rates in 2022-23 moved in three separate stages, influenced largely by expectations about Federal Reserve rate policy. Figure 6 depicts the trend of the five- and 30-year AAA GO MMD benchmarks. From July to mid-August 2022, tax-exempt interest rates declined slowly but steadily on the expectation that the Federal Reserve would soon slow its pace of rate increases. However, momentum shifted as strong economic data was released, leading to a rise in rates through November 2022. Since November 2022, tax-exempt interest rates have fluctuated with short periods of rate increases and decreases associated with concerns about further Federal Reserve rate hikes.

Another important trend for tax-exempt interest rates in 2022-23 has been the inversion of the yield curve. Because of uncertainty about the future, borrowers generally pay higher

FIGURE 6

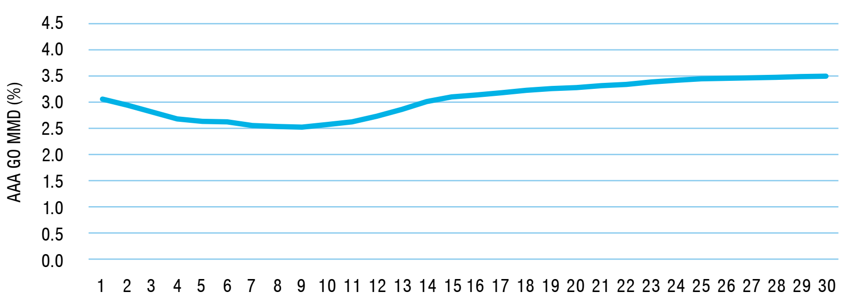
TRENDS OF 5- AND 30-YEAR AAA GO MMD



Source: Refinitiv/Thomson Municipal Market Monitor (TM3)

FIGURE 7

CALIFORNIA GO MMD BENCHMARK RATES ON 6/30/23



Source: Refinitiv/Thomson Municipal Market Monitor (TM3)

interest rates to borrow for longer periods of time. The adherence to this relationship across maturities is referred to as a "normal" yield curve. However, starting in December 2022, the tax-exempt yield curve began to invert, following the course laid out by the Treasury market months earlier. At first, the inversion was limited to the first three years with a very slowly inclined yield curve thereafter. Over time, due largely to SMA investor interest, the inversion extended to longer maturities. As shown in Figure 7, tax-exempt interest rates as of June 30, 2023, were inverted from year one through year nine, after which they rise again starting in year ten.

INTEREST RATES ON THE STATE'S BONDS

Interest rates on the state's bonds are the product of both state-specific factors and more general market conditions. Over the course of 2022-23, interest rates on the state's GO bonds have largely followed the same trend as the national AAA GO MMD benchmark. Due to the rise in tax-exempt rates, the state's borrowing costs have risen as well. However, with a stable and well-managed credit profile the state has been able to lessen the impact of widening credit. Figure 8 compares California GO MMD benchmark rates from the beginning to the end of 2022-23. As shown, rates for the state's GO Bonds have followed the general market trend with the shorter years inverted for a prolonged period, however, when comparing rates in the longer years, the figure shows that rates are only slightly higher than they were one year ago. Overall, the 2022-23 rates are higher than those from much of the past decade as shown in Figure 9. Although interest rates have been comparatively high this past year, the state was still able to refinance $3.5 billion of its outstanding GO bonds in 2022-23 to reduce debt service costs. These refinancings generated approximately $533 million of total debt service savings over the remaining life of the bonds or approximately $369 million on a present value basis.

In addition to fixed-rate GO bonds, the state has approximately $727 million of variable rate GO bonds outstanding as of the end of 2022-23. Throughout the year, the state's variable interest rates have also risen but continue

FIGURE 8

CALIFORNIA GO MMD BENCHMARK RATES

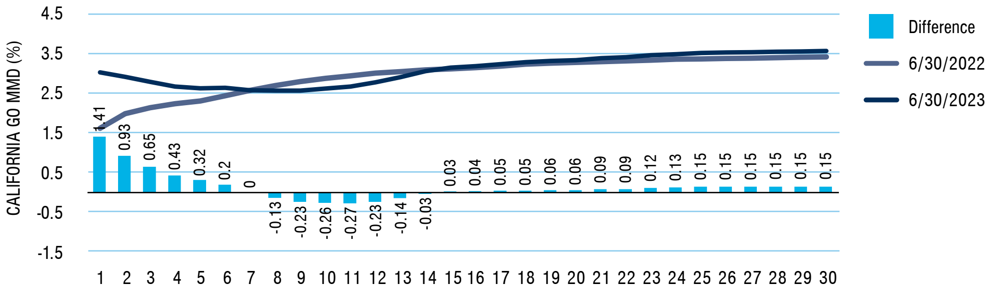
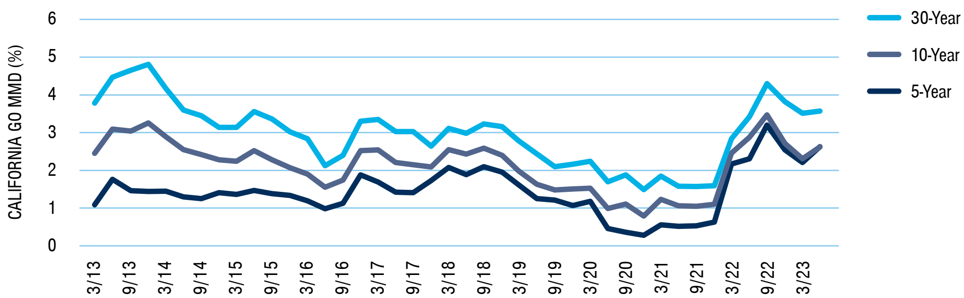


FIGURE 9

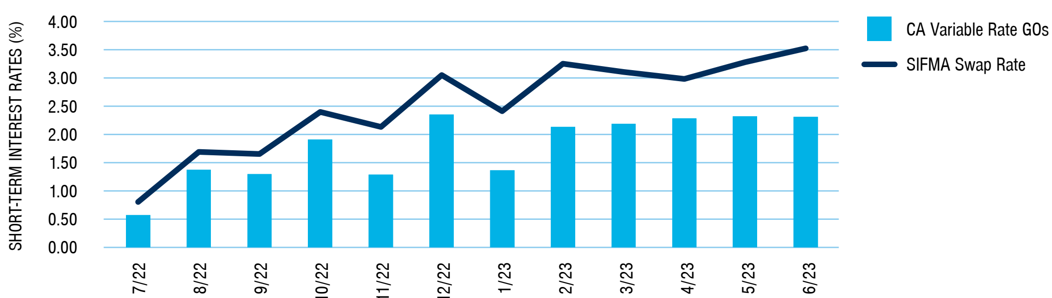
5-, 10- AND 30-YEAR CALIFORNIA GO MMD



Source: Refinitiv/Thomson Municipal Market Monitor (TM3)

FIGURE 10

MONTHLY AVERAGE SHORT-TERM INTEREST RATES



Source: Refinitiv/Thomson Municipal Market Monitor (TM3) and California State Treasurer's Office

to be a source of low-cost financing for the state and help to diversify its capital structure. Historically, short-term tax-exempt interest rates, such as those on variable rate GO bonds, have been lower than long-term tax-exempt interest rates. As shown in Figure 10, the variable rate GO bonds in 2022-23 performed favorably as compared to the short-term Securities Industry and Financial Markets Association ("SIFMA") swap index, which is a composite national index of tax-exempt seven-day high-grade variable rate demand obligations similar to the state's variable rate GO bonds.

SECTION 2 | SNAPSHOT OF THE STATE'S DEBT

OVERVIEW

Figure 11 summarizes the state's long-term debt as of June 30, 2023. This summary of state debt includes General Fund-supported GO bonds approved by voters and lease revenue bonds (LRBs) authorized by the Legislature, as well as self-liquidating GO bonds. Self-liquidating GO bonds receive revenues from specified sources so that money from the General Fund is not expected to pay debt service. However, the General Fund is obligated to pay debt service should the revenues to support repayment not be sufficient. The figures include bonds the state has issued (outstanding) and bonds authorized but not yet issued. A detailed list of the state's outstanding bonds, and their debt service requirements, can be found in Appendices A and B.

FIGURE 11

SUMMARY OF THE STATE'S DEBT (a)
AS OF JUNE 30, 2023 (DOLLARS IN BILLIONS)

	OUTSTANDING	AUTHORIZED BUT UNISSUED(b)	TOTAL
GENERAL FUND SUPPORTED ISSUES			
General Obligation Bonds	$70.67	$25.79	$96.46
Lease Revenue Bonds	7.83	5.77	13.60
TOTAL GENERAL FUND SUPPORTED ISSUES	$78.50	$31.56	$110.06
SELF LIQUIDATING GENERAL OBLIGATION BONDS			
Veterans General Obligation Bonds	$0.66	$0.64	$1.30
California Water Resources Development General Obligation Bonds	0.00	0.17	0.17
TOTAL SELF LIQUIDATING GENERAL OBLIGATION BONDS	$0.66	$0.81	$1.47
TOTAL	$79.16	$32.37	$111.53

(a) Debt obligations not included in Figure 11: Any short-term obligations such as commercial paper or revenue anticipation notes; revenue bonds issued by state agencies which are repaid from specific revenues outside the General Fund; and "conduit" bonds, such as those issued by state financing authorities on behalf of other governmental or private entities whose obligations secure the bonds.

(b) Authorized but Unissued General Obligation Bonds may first be issued as commercial paper.

- Approximately 1.0 percent of the state's outstanding GO bonds carry variable interest rates, which is lower than the statutorily authorized maximum of 20 percent. The State Treasurer has adopted a Debt Management Policy that, as of the date hereof, further reduces this limitation on variable rate indebtedness to 10 percent of the aggregate amount of long-term GO bonds outstanding. The remaining 99.0 percent of the state's outstanding GO bonds have fixed interest rates.
- The state has no interest rate hedging contracts on any debt discussed in this report.

INTENDED ISSUANCE OF GENERAL FUND-SUPPORTED BONDS

The State Treasurer's Office (STO) estimates of intended issuance are based on Department of Finance (DOF) projections of state departments' funding needs. Projections for new-money debt issuance are based on a variety of factors and are periodically updated. Factors that could affect the amount of issuance include actual spending by departments, revised funding needs, overall budget constraints, use or repayment of commercial paper, general market conditions and other considerations. Actual issuance amounts often vary significantly from initial estimates.

Figure 12 shows the STO's estimated issuance of new-money General Fund-supported bonds over the current and next fiscal years. Only currently authorized but unissued GO bonds are reflected in Figure 12. The estimated issuance amounts may increase should new bond programs be approved.

As shown in Figure 12, the STO preliminarily estimates the state will issue a combined $12.5 billion of new money General Fund-supported bonds in 2023-24 and 2024-25. Using these assumptions for debt issuance, the STO estimates debt service payments from the General Fund will increase by $48.9 million in 2023-24 and $564.2 million in 2024-25.[3] A detailed list of the estimated debt service requirements can be found in Appendix B.

FIGURE 12

ESTIMATED ISSUANCE, GENERAL FUND-SUPPORTED BONDS (a) (DOLLARS IN MILLIONS)

	2023-24	2024-25	TOTAL
General Obligation Bonds (b)	$5,500	$4,100	$9,600
Lease Revenue Bonds	1,185	1,722	2,907
TOTAL GENERAL FUND-SUPPORTED BONDS	$6,685	$5,822	$12,507

(a) Debt issuances not included in Figure 12: Any refunding bonds, short-term obligations such as commercial paper or revenue anticipation notes; revenue bonds issued by state agencies which are repaid from specific revenues outside the General Fund; and "conduit" bonds, such as those issued by state financing authorities on behalf of other governmental or private entities whose obligations secure the bonds.

(b) The initial issuance of GO bonds may be in the form of commercial paper notes.

[3] Figures reflect debt service from only a portion of the bond sales listed in Figure 12. For example, $1.6 billion of the $5.5 billion in GO bonds and $385 million of the $1.2 billion in LRBs planned for 2023-24 are expected to be sold during the first half of the fiscal year. These bonds if issued as planned are expected to have interest payments in the second half of the fiscal year. The remaining GO bonds and LRBs expected to be sold in the second half of 2023-24 will not have a debt service payment during 2023-24. The first interest payment for these bonds will be in 2024-25.

SECTION 3 | MEASURING DEBT BURDEN

DEBT RATIOS

Measuring California's debt level with various ratios – while not particularly helpful in assessing debt affordability – provides a way to compare the state's burden to that of other borrowers. The three most commonly used ratios are: debt service as a percentage of General Fund revenues; debt as a percentage of personal income; and debt per capita. A fourth ratio – debt as a percentage of state gross domestic product (GDP) – also can be a useful comparison tool.

DEBT SERVICE AS PERCENTAGE OF GENERAL FUND REVENUES

Because debt service is considered a fixed part of a budget, credit analysts compare General Fund-supported debt service to General Fund revenues to measure a state's fiscal flexibility. California's ratio of General Fund-supported debt service to General Fund revenues was 3.71 percent[4] in 2022-23. That figure is based on $7.62 billion[5] of GO and LRB debt service payments versus $205.1 billion of General Fund revenues (less transfers to the Budget Stabilization Account/Rainy Day Fund).[6] The STO estimates this ratio will be 3.75 percent[7] in 2023-24. That estimate is based on an expected $7.83 billion of debt service payments versus $208.7 billion of General Fund revenues (less transfers to the Budget Stabilization Account/Rainy Day Fund). [6]

DEBT AS PERCENTAGE OF PERSONAL INCOME

Comparing a state's level of debt to the total personal income of its residents is a way to measure a state's ability to generate revenues and repay its obligations. In Moody's U.S. States Liabilities report dated September 26, 2023 ("Moody's September 2023 Report"), Moody's lists the state's ratio of net tax-supported debt to personal income at 3.2 percent.[8]

DEBT PER CAPITA

Debt per capita measures residents' average share of a state's total outstanding debt. It does not account for the employment status, income, or other financial resources of residents. As a result, debt per capita does not reflect a state's ability to repay its obligations as well as other ratios, such as debt service as a percentage of General Fund revenues or debt as a percentage of personal income. In Moody's September 2023 Report, Moody's lists the state's net tax-supported debt per capita at $2,460.[8]

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4 Does not reflect offsets due to subsidy payments from the federal government for Build America Bonds (BABs) or transfers from special funds. When debt service is adjusted to account for approximately $1.7 billion of estimated offsets, the 2022-23 debt service decreases to $6.0 billion, and the ratio of debt service to General Fund revenues drops to 2.90 percent.

5 Excludes enterprise fund bonds, for which debt service each year is paid from dedicated funds.

6 Source: Department of Finance Summary Charts, 2023 Budget Act.

7 Does not reflect offsets due to subsidy payments from the federal government for BABs or transfers from special funds. When debt service is adjusted to account for approximately $1.7 billion of estimated offsets, the 2023-24 debt service decreases to $6.1 billion and the ratio of debt service to General Fund revenues drops to 2.93 percent.

8 California's fiscal 2022 debt and revenue figures are estimated by Moody's in their Moody's September 2023 Report based on available unaudited disclosure because California's fiscal 2022 financial statements were not available as of the date of the publication of Moody's report. Moody's debt figures includes unamortized bond premiums and debt paid from non-general fund sources such as tobacco securitization bonds, various regional center bonds, a P3 financing for the Long Beach Courthouse, and No Place Like Home bonds.

FIGURE 13

DEBT TO PERSONAL INCOME OF 10 MOST POPULOUS STATES

STATE	MOODY'S/S&P/ FITCH (a)	DEBT TO PERSONAL INCOME (b)
Florida	Aaa/AAA/AAA	1.00%
Texas	Aaa/AAA/AAA	1.10%
North Carolina	Aaa/AAA/AAA	1.20%
Michigan	Aa1/AA/AA+	1.50%
Georgia	Aaa/AAA/AAA	2.00%
Pennsylvania	Aa3/A+/AA-	2.40%
Ohio	Aa1/AA+/AAA	2.80%
California	*Aa2/AA-/AA*	*3.20%*
Illinois	A3/A-/BBB+	4.20%
New York	Aa1/AA+/AA+	4.50%
MOODY'S MEDIAN ALL STATES		2.20%
MEDIAN FOR THE 10 MOST POPULOUS STATES		2.20%

(a) Moody's, S&P and Fitch ratings as of August 2023.

(b) Figures as reported by Moody's September 2023 Report. California's fiscal 2022 debt and revenue figures are estimated based on available unaudited disclosure because California's fiscal 2022 financial statements were not available as of the date of the publication of Moody's report.

FIGURE 14

DEBT PER CAPITA OF 10 MOST POPULOUS STATES

STATE	MOODY'S/S&P/ FITCH (a)	DEBT PER CAPITA (b)
Florida	Aaa/AAA/AAA	$661
Texas	Aaa/AAA/AAA	680
North Carolina	Aaa/AAA/AAA	700
Michigan	Aa1/AA/AA+	865
Georgia	Aaa/AAA/AAA	1,144
Pennsylvania	Aa3/A+/AA-	1,565
Ohio	Aa1/AA+/AAA	1,642
California	*Aa2/AA-/AA*	*2,460*
Illinois	A3/A-/BBB+	2,903
New York	Aa1/AA+/AA+	3,539
MOODY'S MEDIAN ALL STATES		$1,178
MEDIAN FOR THE 10 MOST POPULOUS STATES		$1,355

(a) Moody's, S&P and Fitch ratings as of August 2023.

(b) Figures as reported by Moody's September 2023 Report. California's fiscal 2022 debt and revenue figures are estimated based on available unaudited disclosure because California's fiscal 2022 financial statements were not available as of the date of the publication of Moody's report.

DEBT AS PERCENTAGE OF STATE GDP

Debt as a percentage of GDP generally is used to measure the financial leverage provided by an issuer's economy. Specifically, this debt ratio compares what an issuer owes versus what it produces. California has one of the largest economies in the world and one of its most diverse. In Moody's September 2023 Report, Moody's lists the state's net tax-supported debt as percentage of GDP at 2.7 percent.[8]

DEBT RATIOS OF THE 10 MOST POPULOUS STATES

In Moody's September 2023 Report, Moody's calculates for each state the ratios of debt to personal income, debt per capita and debt as a percentage of GDP and provides the median ratios across all states. It is useful to compare California's debt levels with those of its "peer group" of the 10 most populous states. As shown in the tables, the median debt to personal income (Figure 13), debt per capita (Figure 14) and debt as a percentage of GDP (Figure 15) of these 10 states are, on average, in line with Moody's median for all states combined. California's ratios, however, rank above the medians for the 10 most populous states.

FIGURE 15

DEBT AS A PERCENTAGE OF STATE GDP OF 10 MOST POPULOUS STATES

STATE	MOODY'S/S&P/ FITCH (a)	DEBT AS % OF STATE GDP (b)(c)
Texas	Aaa/AAA/AAA	0.90%
North Carolina	Aaa/AAA/AAA	1.00%
Florida	Aaa/AAA/AAA	1.10%
Michigan	Aa1/AA/AA+	1.40%
Georgia	Aaa/AAA/AAA	1.70%
Pennsylvania	Aa3/A+/AA-	2.20%
Ohio	Aa1/AA+/AAA	2.30%
California	*Aa2/AA-/AA*	*2.70%*
New York	Aa1/AA+/AA+	3.40%
Illinois	A3/A-/BBB+	3.50%
MOODY'S MEDIAN ALL STATES		2.00%
MEDIAN FOR THE 10 MOST POPULOUS STATE		1.95%

(a) Moody's, S&P and Fitch ratings as of August 2023.

(b) Figures as reported by Moody's September 2023 Report. California's fiscal 2022 debt and revenue figures are estimated based on available unaudited disclosure because California's fiscal 2022 financial statements were not available as of the date of the publication of Moody's report.

(c) State GDP numbers have a one-year lag.

SECTION 4 | ANALYSIS OF THE STATE'S CREDIT RATINGS

The state's current GO bond ratings are "AA" from Fitch, "Aa2" from Moody's and "AA-" from S&P. A summary of the latest rating agencies' actions on the state's GO bonds is presented in Figure 16.

Since the last DAR, a year ago, the ratings on the state's GO bonds remain unchanged. However, in May 2023, Moody's revised its outlook on the state from stable to negative citing a weakened and uncertain revenue environment raising the possibility of extended pressure on the state's budget. A brief summary of the recent rating agency commentary around the State's key credit strengths and challenges is presented in Figure 17.

FIGURE 16

LATEST RATING ACTIONS

RATING AGENCY	ACTION	DATE
Fitch	Affirmed "AA" rating (stable)	September 2023
Moody's	Affirmed "Aa2" rating and revised outlook from "stable" to "negative"	May 2023
	Affirmed "Aa2" rating (negative)	September 2023
S&P	Affirmed "AA-" rating (positive)	September 2023

FIGURE 17

STATE OF CALIFORNIA GENERAL OBLIGATION RATING AGENCY COMMENTARY

	FITCH	MOODY'S	S&P
RATING STRENGTHS	• Large and diverse economy • Solid ability to manage expenses through the economic cycle and moderately low level of long-term liabilities • Strong fiscal management demonstrated through a build-up of reserves that allows state to withstand economic and revenue cyclicality	• Massive economic base • Healthy budget reserves and liquidity • Although higher than state medians, fixed costs and leverage burdens are far lower than most heavily burdened states and lower than many Aa peers	• Strong economy, high income levels and good economic diversity • Strong financial reserves and overall liquidity • Moderate and stable net debt ratios
RATING CHALLENGES	• Revenues are more volatile than those of other states • Flexibility to reduce spending is somewhat more restricted than most states due to constitutional requirements • While not described as a rating challenge, Fitch notes an emerging issue related to data quality and transparency due to late audited financial statements in its "ESG Considerations" comments	• Highly volatile revenue structure, legislative supermajority requirement to raise new revenue, and spending mandates that altogether limit operating flexibility relative to most states • Weakened and uncertain revenue environment raising possibility of extended pressure on state budget • Vulnerability to changes in federal policy and funding, especially with regard to healthcare • High cost of living may contribute to accelerated out-migration and become a drag on economic growth over time	• Volatile revenues due to reliance on progressive tax structure and capital gains tax • High cost of housing and high social service spending • Minimal prefunding of large retiree health care benefits • While not described as a rating challenge, the chronically late release of financial audits is a credit constraint

APPENDIX A | THE STATE'S DEBT

AUTHORIZED AND OUTSTANDING NON-SELF LIQUIDATING GENERAL OBLIGATION BONDS AS OF JUNE 30, 2023 (DOLLARS IN THOUSANDS)

	GENERAL FUND BONDS	VOTER AUTHORIZATION DATE	AUTHORIZATION AMOUNT	LONG TERM BONDS OUTSTANDING	COMMERCIAL PAPER OUTSTANDING (a)	UNISSUED
	1988 School Facilities Bond Act (b)	11/08/88	$797,745	$11,920	$ -	$ -
	1990 School Facilities Bond Act (b)	06/05/90	797,875	10,680	-	-
	1992 School Facilities Bond Act (b)	11/03/92	898,211	33,255	-	-
	California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002 (e)	03/05/02	2,596,643	1,521,500	16,010	107,613
	California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018	06/05/18	4,100,000	983,285	86,250	2,944,520
	California Library Construction and Renovation Bond Act of 1988 (b)	11/08/88	72,405	2,890	-	-
*	California Park and Recreational Facilities Act of 1984 (b)	06/05/84	368,900	2,350	-	-
*	California Parklands Act of 1980	11/04/80	285,000	100	-	-
	California Reading and Literacy Improvement and Public Library Construction and Renovation Bond Act of 2000	03/07/00	350,000	191,210	-	5,040
*	California Safe Drinking Water Bond Law of 1976 (b)	06/08/76	172,500	910	-	-
*	California Safe Drinking Water Bond Law of 1984	11/06/84	75,000	400	-	-
*	California Safe Drinking Water Bond Law of 1986	11/04/86	100,000	4,875	-	-
	California Safe Drinking Water Bond Law of 1988	11/08/88	75,000	10,665	-	-
	California Stem Cell Research and Cures Bond Act of 2004	11/02/04	3,000,000	929,685	23,255	93,390
	California Stem Cell Research, Treatments, and Cures Bond Act of 2020	11/03/20	5,500,000	416,600	-	5,083,400
*	California Wildlife, Coastal, and Park Land Conservation Act (b)	06/07/88	768,670	26,040	-	-
	Children's Hospital Bond Act of 2004	11/02/04	750,000	522,915	80	1,450
	Children's Hospital Bond Act of 2008	11/04/08	980,000	759,915	1,255	41,695
	Children's Hospital Bond Act of 2018	11/06/18	1,500,000	140,380	68,255	1,260,655

AUTHORIZED AND OUTSTANDING
NON-SELF LIQUIDATING GENERAL OBLIGATION BONDS
AS OF JUNE 30, 2023 (DOLLARS IN THOUSANDS) CONTINUED

	GENERAL FUND BONDS	VOTER AUTHORIZATION DATE	AUTHORIZATION AMOUNT	LONG TERM BONDS OUTSTANDING	COMMERCIAL PAPER OUTSTANDING (a)	UNISSUED
	Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998 (Hi-Ed)	11/03/98	2,500,000	1,049,635	-	-
	Class Size Reduction Kindergarten-University Public Education Facilities Bond Act of 1998 (K-12)	11/03/98	6,700,000	2,184,335	-	100
*	Clean Air and Transportation Improvement Bond Act of 1990	06/05/90	1,990,000	241,990	-	-
*	Clean Water Bond Law of 1984	11/06/84	325,000	350	-	-
*	Clean Water and Water Conservation Bond Law of 1978	06/06/78	375,000	1,150	-	-
	Clean Water and Water Reclamation Bond Law of 1988	11/08/88	65,000	3,625	-	-
	County Correctional Facility Capital Expenditure and Youth Facility Bond Act of 1988	11/08/88	500,000	9,760	-	-
	Disaster Preparedness and Flood Prevention Bond Act of 2006 (d)(g)	11/07/06	3,960,560	2,783,095	100,835	244,047
	Earthquake Safety and Public Buildings Rehabilitation Bond Act of 1990 (f)	06/05/90	292,510	2,865	-	-
*	Fish and Wildlife Habitat Enhancement Act of 1984	06/05/84	85,000	2,245	-	-
	Higher Education Facilities Bond Act of 1988	11/08/88	600,000	4,735	-	-
	Higher Education Facilities Bond Act of June 1990	06/05/90	450,000	9,630	-	540
	Higher Education Facilities Bond Act of June 1992	06/02/92	900,000	58,135	-	-
	Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006	11/07/06	19,925,000	13,589,570	110,625	614,825
	Housing and Emergency Shelter Trust Fund Act of 2002	11/05/02	2,100,000	107,670	2,890	62,975
	Housing and Emergency Shelter Trust Fund Act of 2006	11/07/06	2,850,000	810,400	42,180	205,325
	Kindergarten Through Community College Public Education Facilities Bond Act of 2016 (CCC)	11/08/16	2,000,000	639,825	73,135	1,182,140
	Kindergarten Through Community College Public Education Facilities Bond Act of 2016 (K-12)	11/08/16	7,000,000	5,698,285	66,570	291,435
	Kindergarten-University Public Education Facilities Bond Act of 2002 (Hi-Ed)	11/05/02	1,650,000	1,014,440	-	-
	Kindergarten-University Public Education Facilities Bond Act of 2002 (K-12)	11/05/02	11,400,000	6,237,325	-	5,455
	Kindergarten-University Public Education Facilities Bond Act of 2004 (Hi-Ed)	03/02/04	2,300,000	1,465,625	-	58,019
	Kindergarten-University Public Education Facilities Bond Act of 2004 (K-12)	03/02/04	10,000,000	6,086,175	-	16,160
	Kindergarten-University Public Education Facilities Bond Act of 2006 (Hi-Ed)	11/07/06	3,087,000	2,359,145	-	38,775
	Kindergarten-University Public Education Facilities Bond Act of 2006 (K-12)	11/07/06	7,329,000	5,001,665	30,700	137,860
*	New Prison Construction Bond Act of 1986	11/04/86	500,000	835	-	-
	New Prison Construction Bond Act of 1988	11/08/88	817,000	2,105	-	1,245
	New Prison Construction Bond Act of 1990	06/05/90	450,000	490	-	605
	Public Education Facilities Bond Act of 1996 (Higher Education)	03/26/96	975,000	234,695	-	4,650

AUTHORIZED AND OUTSTANDING NON-SELF LIQUIDATING GENERAL OBLIGATION BONDS AS OF JUNE 30, 2023 (DOLLARS IN THOUSANDS) CONTINUED

	GENERAL FUND BONDS	VOTER AUTHORIZATION DATE	AUTHORIZATION AMOUNT	LONG TERM BONDS OUTSTANDING	COMMERCIAL PAPER OUTSTANDING (a)	UNISSUED
	Public Education Facilities Bond Act of 1996 (K-12) (c)	03/26/96	2,012,035	341,175	-	-
	Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Act (d)	03/07/00	1,884,000	984,855	-	43,346
	Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (d)(e)	11/07/06	5,266,357	3,167,690	154,890	626,967
	Safe Neighborhood Parks, Clean Water, Clean Air, and Coastal Protection Bond Act of 2000	03/07/00	2,100,000	920,760	6,730	13,080
	Safe, Clean, Reliable Water Supply Act (d)	11/05/96	969,500	310,995	-	62,915
	Safe, Reliable High-Speed Passenger Train Bond Act for the 21st Century	11/04/08	9,950,000	4,105,360	127,535	3,564,090
*	School Building and Earthquake Bond Act of 1974	11/05/74	150,000	3,990	-	-
	School Facilities Bond Act of 1990	11/06/90	800,000	13,825	-	-
	School Facilities Bond Act of 1992	06/02/92	1,900,000	43,065	-	10,280
	Seismic Retrofit Bond Act of 1996	03/26/96	2,000,000	610,295	-	-
*	State, Urban, and Coastal Park Bond Act of 1976	11/02/76	280,000	840	-	-
	Veterans Homes Bond Act of 2000	03/07/00	50,000	29,455	-	975
	Veterans Housing and Homeless Prevention Bond Act of 2014	06/03/14	600,000	209,010	28,695	346,760
	Veterans and Affordable Housing Bond Act of 2018	11/06/18	3,000,000	391,635	131,895	2,474,740
	Voting Modernization Bond Act of 2002	03/05/02	200,000	44,420	-	10,430
	Water Conservation Bond Law of 1988 (f)	11/08/88	54,765	5,605	-	-
*	Water Conservation and Water Quality Bond Law of 1986 (d)	06/03/86	136,500	6,900	-	230
	Water Quality, Supply, and Infrastructure Improvement Act of 2014 (e)	11/04/14	7,465,000	2,126,545	234,435	4,721,145
	Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (d)	11/05/02	3,345,000	2,180,280	20,890	183,509
	TOTAL GENERAL FUND BONDS		$156,477,176	$70,666,075	$1,327,110	$24,460,386

(a) A total of not more than $2.45 billion of commercial paper principal plus accrued interest may be owing at one time. Bond acts marked with an asterisk (*) are not legally permitted to utilize commercial paper.

(b) SB 1018 (06/27/2012) reduced the voter authorized amount

(c) SB 1018 (06/27/2012) and SB 71 (06/27/2013) reduced the voter authorized amount

(d) AB 1471 (11/04/2014) reduced the voter authorized amount

(e) SB 5 (6/5/2018) reduced the voter authorized amount.

(f) AB 92 (6/29/2020) reduced the voter authorized amount

(g) The original voter authorized amount has been reduced in accordance with section 5096.828 of the Public Resources Code of the State of California.

AUTHORIZED AND OUTSTANDING SELF LIQUIDATING GENERAL OBLIGATION BONDS AS OF JUNE 30, 2023 (DOLLARS IN THOUSANDS)

	ENTERPRISE FUND BONDS (SELF LIQUIDATING)	VOTER AUTHORIZATION DATE	AUTHORIZATION AMOUNT	LONG TERM BONDS OUTSTANDING	COMMERCIAL PAPER OUTSTANDING (a)	UNISSUED
*	California Water Resources Development Bond Act	11/08/60	$1,750,000	$120	$ -	$167,600
	Veterans Bond Act of 1986	06/03/86	850,000	$3,465	-	-
	Veterans Bond Act of 1988	06/07/88	510,000	$6,240	-	-
	Veterans Bond Act of 1990	11/06/90	400,000	$14,335	-	-
	Veterans Bond Act of 1996	11/05/96	400,000	$25,640	-	-
	Veterans Bond Act of 2000	11/07/00	500,000	$114,555	-	-
	Veterans Bond Act of 2008 (b)	11/04/08	300,000	$164,365	-	-
	Veterans and Affordable Housing Bond Act of 2018 (CalVet)	11/06/18	1,000,000	$334,065	-	636,235
	TOTAL ENTERPRISE FUND BONDS		$5,710,000	$662,785	$ -	$803,835

(a) Bond acts marked with an asterisk (*) are not legally permitted to utilize commercial paper.

(b) AB 639 (10/10/2013) reduced the voter authorized amount

AUTHORIZED AND OUTSTANDING LEASE REVENUE BONDS AS OF JUNE 30, 2023 (DOLLARS IN THOUSANDS)

GENERAL FUND SUPPORTED ISSUES (a):	OUTSTANDING	AUTHORIZED BUT UNISSUED
STATE PUBLIC WORKS BOARD ISSUES (BY FACILITY LESSEE)		
Air Resources Board	$288,910	$ -
Board of State and Community Corrections	84,005	920,133
California Community Colleges	86,390	-
California Department of Corrections and Rehabilitation	3,228,370	411,302
California Department of Forestry and Fire Protection	215,895	187,589
California Department of Veterans Affairs	217,285	324,933
Department of Developmental Services	67,540	-
Department of Education	103,655	-
Department of General Services	1,306,670	1,919,518
Department of Public Health	42,470	-
Department of State Hospitals	198,995	27,530
Judicial Council	1,670,345	1,621,350
Other State Facilities	217,635	359,803
Trustees of the California State University	96,805	-
TOTAL STATE PUBLIC WORKS BOARD ISSUES	$7,824,970	$5,772,158
TOTAL NON-STATE PUBLIC WORKS BOARD STATE FACILITIES ISSUES	$4,995	$ -
TOTAL GENERAL FUND SUPPORTED ISSUES	$7,829,965	$5,772,158

(a) Lease payments that secure each of these issues are payable from the operating budget of the respective lessees. The operating budgets of the lessees are primarily, but not exclusively, derived from the General Fund.

APPENDIX B | THE STATE'S DEBT SERVICE

SCHEDULE OF DEBT SERVICE REQUIREMENTS FOR GENERAL FUND NON-SELF LIQUIDATING BONDS FIXED RATE, AS OF JUNE 30, 2023

	CURRENT DEBT		
FISCAL YEAR ENDING JUNE 30	INTEREST (a)	PRINCIPAL	TOTAL (b)
2024 (c)	3,450,335,458.17	3,395,470,000.00	6,845,805,458.17
2025	3,302,586,594.27	3,438,530,000.00	6,741,116,594.27
2026	3,143,765,198.60	3,422,820,000.00	6,566,585,198.60
2027	2,977,873,401.62	3,596,120,000.00	6,573,993,401.62
2028	2,816,026,099.05	3,736,105,000.00	6,552,131,099.05
2029	2,651,353,002.80	3,670,775,000.00	6,322,128,002.80
2030	2,479,256,639.05	3,619,330,000.00	6,098,586,639.05
2031	2,314,039,397.80	3,573,230,000.00	5,887,269,397.80
2032	2,156,554,601.55	3,373,880,000.00	5,530,434,601.55
2033	1,996,871,941.55	3,722,285,000.00	5,719,156,941.55
2034	1,837,656,344.02	3,691,370,000.00	5,529,026,344.02
2035	1,593,710,737.08	3,196,635,000.00	4,790,345,737.08
2036	1,428,812,710.17	3,228,665,000.00	4,657,477,710.17
2037	1,272,884,482.67	3,055,435,000.00	4,328,319,482.67
2038	1,109,643,608.90	3,407,065,000.00	4,516,708,608.90
2039	977,794,517.62	3,389,725,000.00	4,367,519,517.62
2040	689,884,376.37	2,212,745,000.00	2,902,629,376.37
2041	523,767,200.04	2,179,625,000.00	2,703,392,200.04
2042	425,746,650.04	1,188,165,000.00	1,613,911,650.04
2043	359,757,100.04	1,691,560,000.00	2,051,317,100.04
2044	285,099,390.66	1,008,660,000.00	1,293,759,390.66
2045	248,617,256.28	893,925,000.00	1,142,542,256.28
2046	197,308,675.03	1,144,865,000.00	1,342,173,675.03
2047	151,171,593.78	887,500,000.00	1,038,671,593.78
2048	109,901,471.90	850,000,000.00	959,901,471.90
2049	85,715,725.02	490,000,000.00	575,715,725.02
2050	63,590,725.02	675,000,000.00	738,590,725.02
2051	33,562,500.02	600,000,000.00	633,562,500.02
2052	19,984,375.01	350,000,000.00	369,984,375.01
2053	5,875,000.00	250,000,000.00	255,875,000.00
TOTAL	$38,709,146,774.13	$69,939,485,000.00	$108,648,631,774.13

(a) The amounts do not reflect any interest subsidy under the Build America Bonds program. Subsidy not pledged to the repayment of debt service.

(b) Includes scheduled mandatory sinking fund payments. Does not include outstanding commercial paper.

(c) Represents the debt service requirements from July 1, 2023 through June 30, 2024.

SCHEDULE OF DEBT SERVICE REQUIREMENTS FOR GENERAL FUND NON-SELF LIQUIDATING BONDS VARIABLE RATE, AS OF JUNE 30, 2023

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT		
	INTEREST (a)	PRINCIPAL	TOTAL (b)
2024 (c)	19,369,580.65	57,900,000.00	77,269,580.65
2025	17,900,039.55	38,800,000.00	56,700,039.55
2026	17,002,970.76	67,900,000.00	84,902,970.76
2027	15,635,886.08	13,300,000.00	28,935,886.08
2028	15,340,357.56	13,900,000.00	29,240,357.56
2029	14,946,519.12	19,600,000.00	34,546,519.12
2030	14,402,621.02	109,290,000.00	123,692,621.02
2031	11,773,883.70	116,800,000.00	128,573,883.70
2032	7,907,968.20	167,800,000.00	175,707,968.20
2033	2,931,508.35	120,600,000.00	123,531,508.35
2034	17,745.20	300,000.00	317,745.20
2035	11,660.01	-	11,660.01
2036	11,710.57	-	11,710.57
2037	11,609.47	-	11,609.47
2038	11,659.99	-	11,659.99
2039	11,660.03	-	11,660.03
2040	10,691.11	400,000.00	410,691.11
TOTAL	$137,298,071.37	$726,590,000.00	$863,888,071.37

(a) The estimate of future interest payments is based on rates in effect as of June 30, 2023. The interest rates for the daily and weekly rate bonds range from 2.10-3.43%.

(b) Includes scheduled mandatory sinking fund payments. Does not include outstanding commercial paper.

(c) Represents the estimated debt service requirements from July 1, 2023 through June 30, 2024.

SCHEDULE OF DEBT SERVICE REQUIREMENTS FOR ENTERPRISE FUND SELF LIQUIDATING BONDS FIXED RATE, AS OF JUNE 30, 2023

	CURRENT DEBT		
FISCAL YEAR ENDING JUNE 30	INTEREST	PRINCIPAL	TOTAL (a)
2024 (b)	23,429,883.79	4,010,000.00	27,439,883.79
2025	23,295,636.29	10,225,000.00	33,520,636.29
2026	23,125,158.79	6,965,000.00	30,090,158.79
2027	22,685,981.29	26,585,000.00	49,270,981.29
2028	21,986,726.91	23,880,000.00	45,866,726.91
2029	21,243,318.15	28,070,000.00	49,313,318.15
2030	20,104,197.52	43,290,000.00	63,394,197.52
2031	18,664,045.02	42,895,000.00	61,559,045.02
2032	17,443,128.77	28,440,000.00	45,883,128.77
2033	16,342,485.02	34,535,000.00	50,877,485.02
2034	15,206,488.77	31,275,000.00	46,481,488.77
2035	14,388,855.02	17,445,000.00	31,833,855.02
2036	13,821,215.02	18,185,000.00	32,006,215.02
2037	13,219,305.02	18,970,000.00	32,189,305.02
2038	12,584,468.14	19,800,000.00	32,384,468.14
2039	11,997,460.01	15,055,000.00	27,052,460.01
2040	11,462,148.76	15,725,000.00	27,187,148.76
2041	10,806,080.01	22,040,000.00	32,846,080.01
2042	9,986,522.51	24,895,000.00	34,881,522.51
2043	9,072,923.76	26,665,000.00	35,737,923.76
2044	8,073,008.76	28,100,000.00	36,173,008.76
2045	7,002,209.38	28,420,000.00	35,422,209.38
2046	5,884,585.00	29,565,000.00	35,449,585.00
2047	4,767,350.00	27,885,000.00	32,652,350.00
2048	3,766,727.50	22,645,000.00	26,411,727.50
2049	2,910,987.50	17,755,000.00	20,665,987.50
2050	2,169,087.50	14,575,000.00	16,744,087.50
2051	1,506,850.00	13,340,000.00	14,846,850.00
2052	903,237.50	10,255,000.00	11,158,237.50
2053	310,612.50	11,295,000.00	11,605,612.50
TOTAL	$368,160,684.21	$662,785,000.00	$1,030,945,684.21

(a) Includes scheduled mandatory sinking fund payments.

(b) Represents the debt service requirements from July 1, 2023 through June 30, 2024.

SCHEDULE OF DEBT SERVICE REQUIREMENTS FOR LEASE-REVENUE DEBT FIXED RATE, AS OF JUNE 30, 2023

FISCAL YEAR ENDING JUNE 30	CURRENT DEBT INTEREST (a)	CURRENT DEBT PRINCIPAL	CURRENT DEBT TOTAL (b)
2024 (c)	381,397,699.90	478,955,000.00	860,352,699.90
2025	354,770,216.10	505,620,000.00	860,390,216.10
2026	329,360,688.59	519,405,000.00	848,765,688.59
2027	303,167,578.84	549,270,000.00	852,437,578.84
2028	275,598,034.93	563,555,000.00	839,153,034.93
2029	247,219,964.06	534,775,000.00	781,994,964.06
2030	221,153,805.11	531,600,000.00	752,753,805.11
2031	194,992,133.06	526,890,000.00	721,882,133.06
2032	167,989,152.80	541,485,000.00	709,474,152.80
2033	139,865,681.88	490,305,000.00	630,170,681.88
2034	114,572,554.42	477,055,000.00	591,627,554.42
2035	89,547,149.06	441,650,000.00	531,197,149.06
2036	69,792,643.76	304,220,000.00	374,012,643.76
2037	55,874,468.76	294,355,000.00	350,229,468.76
2038	43,437,850.01	234,075,000.00	277,512,850.01
2039	33,638,287.51	187,260,000.00	220,898,287.51
2040	25,891,293.76	147,415,000.00	173,306,293.76
2041	20,975,815.63	68,395,000.00	89,370,815.63
2042	18,018,921.88	71,360,000.00	89,378,921.88
2043	14,956,943.76	74,410,000.00	89,366,943.76
2044	11,661,656.26	77,720,000.00	89,381,656.26
2045	8,217,818.76	81,150,000.00	89,367,818.76
2046	4,840,521.88	72,835,000.00	77,675,521.88
2047	1,666,125.00	54,735,000.00	56,401,125.00
2048	36,750.00	1,470,000.00	1,506,750.00
TOTAL	$3,128,643,755.72	$7,829,965,000.00	$10,958,608,755.72

(a) The amounts do not reflect any interest subsidy under the Build America Bonds program. Subsidy not pledged to the repayment of debt service.

(b) Includes scheduled mandatory sinking fund payments.

(c) Represents the debt service requirements from July 1, 2023 through June 30, 2024.

ESTIMATED DEBT SERVICE REQUIREMENTS ON INTENDED SALES OF AUTHORIZED BUT UNISSUED BONDS DURING FISCAL YEARS 2023-24 AND 2024-25 (a)

FISCAL YEAR ENDING JUNE 30	FY 2023-24 GO SALES DEBT SERVICE	FY 2024-25 GO SALES DEBT SERVICE	FY 2023-24 LRB SALES DEBT SERVICE	FY 2024-25 LRB SALES DEBT SERVICE	TOTAL DEBT SERVICE ALL SALES
2024	39,200,000.00	-	9,720,492.50	-	48,920,492.50
2025	455,426,663.42	65,000,000.00	91,932,335.00	46,057,481.25	658,416,479.67
2026	446,313,330.25	347,699,993.42	91,935,552.50	151,113,377.50	1,037,062,253.67
2027	437,199,997.08	340,593,327.10	91,939,451.25	151,115,996.25	1,020,848,771.68
2028	428,086,663.91	333,486,660.78	91,920,193.75	151,110,511.25	1,004,604,029.69
2029	418,973,330.74	326,379,994.46	91,933,690.00	151,107,025.00	988,394,040.20
2030	409,859,997.57	319,273,328.14	91,929,305.00	151,109,703.75	972,172,334.46
2031	400,746,664.40	312,166,661.82	91,927,302.50	151,107,312.50	955,947,941.22
2032	391,633,331.23	305,059,995.50	91,932,315.00	151,108,081.25	939,733,722.98
2033	382,519,998.06	297,953,329.18	91,928,712.50	151,109,437.50	923,511,477.24
2034	373,406,664.89	290,846,662.86	91,925,991.25	151,103,407.50	907,282,726.50
2035	364,293,331.72	283,739,996.54	91,922,880.00	151,110,947.50	891,067,155.76
2036	355,179,998.55	276,633,330.22	91,922,981.25	151,117,077.50	874,853,387.52
2037	346,066,665.38	269,526,663.90	91,919,130.00	151,111,683.75	858,624,143.03
2038	336,953,332.21	262,419,997.58	91,929,550.00	151,108,716.25	842,411,596.04
2039	327,839,999.04	255,313,331.26	91,926,046.25	151,105,921.25	826,185,297.80
2040	318,726,665.87	248,206,664.94	64,263,151.25	151,114,841.25	782,311,323.31
2041	309,613,332.70	241,099,998.62	64,260,865.00	46,963,867.50	661,938,063.82
2042	300,499,999.53	233,993,332.30	64,264,223.75	46,955,628.75	645,713,184.33
2043	291,386,666.36	226,886,665.98	64,267,602.50	46,952,325.00	629,493,259.84
2044	282,273,333.19	219,779,999.66	64,260,628.75	46,958,873.75	613,272,835.35
2045	273,160,009.77	212,673,333.34	64,272,167.50	46,960,192.50	597,065,703.11
2046	264,046,676.11	205,566,686.76	64,260,952.50	46,961,198.75	580,835,514.12
2047	254,933,342.45	198,460,019.40	64,260,970.00	46,956,542.50	564,610,874.35
2048	245,820,008.79	191,353,352.04	64,269,676.25	46,955,472.50	548,398,509.58
2049	236,706,675.13	184,246,684.68	64,264,653.75	46,961,568.75	532,179,582.31
2050	227,593,341.47	177,140,017.32	-	46,958,411.25	451,691,770.04
2051	218,480,007.81	170,033,349.96	-	-	388,513,357.77
2052	209,366,674.15	162,926,682.60	-	-	372,293,356.75
2053	200,253,340.49	155,820,015.24	-	-	356,073,355.73
2054	191,140,006.83	148,713,347.88	-	-	339,853,354.71
2055	-	141,606,680.52	-	-	141,606,680.52
TOTAL	$9,737,700,049.10	$7,404,600,104.00	$2,031,290,820.00	$2,782,295,602.50	$21,955,886,575.60

(a) Estimated issuance figures above are as of August 1, 2023. Estimated debt issuance amounts are updated throughout the fiscal year. The actual amount of bonds sold will depend on factors such as overall budget constraints, market conditions and other considerations. The state also expects to issue refunding bonds as market conditions warrant. The actual amount of bonds and refunding bonds sold will have a direct impact on the accuracy of the figures presented.

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